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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,866	08/17/2001	Gerard Chauvel	TI-31347	6569
23494	7590	10/17/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			KIM, HONG CHONG	
			ART UNIT	PAPER NUMBER
			2185	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,866

Applicant(s)

CHAUVEL ET AL.

Examiner

Hong C. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 is/are allowed.
- 6) ☒ Claim(s) 1-7 12-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |



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Detailed Action

1. Claims 1-16 are presented for examination. This office action is in response to the amendment filed on 08/23/2005.
2. Applicants are reminded of the duty to disclose information under 37 CFR 1.56.
3. Applicants are requested to include the status of the related U.S. applications (i.e. 09/932,556) or patents (i.e. 6,684,280) in the CROSS-REFERENCE TO RELATED APPLICATIONS section and in any other corresponding area in the specification accordingly (e.g., U.S. Patent Application Serial No. ###/###,### filed Sept. 07, 1990, now abandoned; ..., now U.S. Patent #,###,### issued Jan. 01, 1994; or This application is a continuation of Serial Number ###/###,###, filed on December 01, 1990, now abandoned; ...etc.).

Claim Objections

4. Claims 1-7 and 12-16 are objected to because of the following informalities: it appears that added limitation "provided with a single access request" was not described in the specification at the time the application was filed, had possession of the claimed invention.

Appropriate correction is required.

DOUBLE-PATENTING

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5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-7 and 12-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,684,280 in view of Lim, US Patent No. 6,430,640.

As to claim1, USP 6,684,280 claims a method for prioritizing access to a shared resource in a digital having a plurality of devices vying for access to the shared resource, comprising the steps of: initiating an access request by each of

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the plurality of devices; providing priority values along with each access request from each device; and arbitrating for access to the shared device by using the priority values provided with a single access (claims 17 and 18). Although USP 6,684,280 discloses priority values (claim 17) and task priority and software priority (claim 18), USP 6,684 does not specifically disclose the step of arbitrating a higher of the two priority values.

Lim discloses a method for prioritizing access to a shared resource in a digital having a plurality of devices vying for access to the shared resource (col. 14 lines 55+) comprising the steps of: initiating an access request by each of the plurality of devices (col. 14 lines 8-12) and arbitrating a higher of the two priority values (col. 14 line 11 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation) provided with a single access (Fig. 1 Ref. 11 and col. 2 line 64 thru col. 3 lines 11) for the purpose of providing a fairness to each requested device, efficiency to the system busy 100 percent of the time, response and turnaround times to minimum and maximum throughput.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the steps of providing arbitrating a higher of the two priority values of Lim into the USP 6,684,280 for the advantages stated above.

As to claim 7, the claim 7 encompasses the same scope of the invention as that of the claim 1. Therefore, the claim 7 is rejected for the same reason as the claim 1.

As to claims 2-6 and 12-16, claims are rejected because they incorporate the defect of the parent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Lim US Patent No. 6,430,640.

As to claim 1, Lim discloses a method (col. 13 lines 33-35) for prioritizing access to a shared resource in a digital having a plurality of devices vying for access to the shared resource (Fig. 14 ref. 408) comprising the steps of: initiating

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an access request by each of the plurality of devices (Fig. 13 Ref. 400); providing two priority values (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation) along with each access request (col. 6 lines 25-36); and arbitrating for access to the shared device by using the higher of priority values provided with a single access request (Fig. 1 Ref. 11 and col. 2 line 64 thru col. 3 lines 11).

As to claim 7, Lim discloses a digital system (Fig. 14) comprising: a shared resource (Fig. 14 Ref. 408); a plurality of devices (Fig. 13 Ref. 400) connected to access the shared resource, wherein each device has a request output (col. 6 lines 25-36) and circuitry for providing two separate variable priority values (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation) and arbitration circuitry (Fig. 14 Ref. 404, Fig. 1 Ref. 11 and col. 2 line 64 thru col. 3 lines 11) operates according to a higher of the two priority values provided with a single access request (col. 6 lines 25-36).

Claim Rejections - 35 USC ' 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lim US Patent No. 6,430,640 in view of Holt et al. (Holt) US Patent No. 5,263,163.

As to claim 14, Lim discloses the invention as claimed above. Lim further discloses the step of providing an access priority value (col. 15 lines 35-55) with each request that is responsive to a task currently being executed by the device, however, Lim does not specifically disclose providing an address space priority value with each request that is responsive to an address specified by each access request.

Holt discloses providing an address space priority value with each request that is responsive to an address specified by each access request (col. 21 lines 10-18) for the purpose of providing a fairness to each requested device, efficiency to the system busy 100 percent of the time, response and turnaround times to minimum and maximum throughput.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate an address space priority value with each request that is responsive to an address specified by each access as shown in Holt into the invention of Lim for the advantages stated above.

Allowable Subject Matter

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9. Claims 2-6, 12-13, and 15-16, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and overcome claim objections and double patenting rejections.

10. Claims 8-11 are allowed.

Response to Arguments

11. Applicant's arguments filed on 8/29/30/05 have been fully considered but they are not persuasive.

Applicant's argument on pages 8+ that the reference does not disclose two priority values is not considered persuasive.

USP 6,684,280 discloses two priority values (claim 17, and task priority and software priority in claim 18).

Lim also discloses two priority values (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation).

Applicant's argument on pages 8+ that the reference does not disclose arbitrating two priority values provided with a single access request is not considered persuasive.

USP 6,684,280 discloses arbitrating two priority values provided with a single access request (claim 17, and task priority and software priority in claim 18).

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Lim also discloses arbitrating two priority values provided with a single access request (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation). Specifically, Lim discloses priorities are determined based on respective priority value however, if the value is same between competing processors, processor ID number is used to determine higher priority request (col. 15 lines 30–56), in other words, priority value in combination with processor ID are used to determine higher priority request and arbitrate tasks. This process is similar to the given application (see pages 15-17 or blocks 30-34). Specifically, page 15 or block 30 of this given application discloses that task name and task priority are used to arbitrate tasks, and page 16 or block 31, CPU priority and task priority are used to arbitrate tasks.

Therefore broadly written claims are disclosed by the references cited.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

2. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory

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action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

3. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. ' 1.111(c).

4. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Kim whose telephone number is (571) 272-4181. The examiner can normally be reached on M-F 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is

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assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 whose telephone number is (571) 272-2100.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7. **Any response to this action should be mailed to:**

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to TC-2100:
(703) 872-9306

Hand-delivered responses should be brought to the Customer Service Window (Randolph Building, 401 Dulany Street, Alexandria, VA 22314).

H Kim
Primary Patent Examiner
October 14, 2005

